



CITY OF
Lethbridge

Spray Applied Foam Requirements Revised

Group C Residential Occupancies

Spray Foam must meet the requirements of 9.25.2.2.(1).(g) CAN/ULC-S705.1-01 "Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density - Specification". The application of the spray foam must meet the requirements of CAN/ULC-S705.2-05 "Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density – Application"

Thermal Insulation

Spray foam must be installed to the prescribed thickness to provide the Thermal Insulation Requirements of Table 9.25.2.1.

- 1) Wall Assemblies (except basements) – R12
- 2) Basement and crawlspaces – R8
- 3) Floor Assemblies Perimeter – R12
- 4) Floor Assemblies (exposed Cantilevers – R20
- 5) Roof or Ceiling Assemblies – R34

Air Barriers

9.25.3.1.(1). Thermally insulated wall, ceiling and floor assemblies shall be constructed so as to include an air barrier system that will provide a continuous barrier to air leakage.

No additional air barrier requirements will be required if spray applied foam products are being applied in conformance with their individual CCMC Listings.

When spray applied foam is installed as an air barrier, additional sealants and gaskets may be required as per the foam manufactures approved air barrier system.

Vapour Barriers

9.25.4.1.(1). Thermally insulated wall, ceiling and floor assemblies shall be constructed with a vapour barrier so as to provide a barrier to diffusion of water vapour from the interior into wall spaces, floor spaces or attic or roof spaces.

An approved Vapour Barrier is required when open cell spray foam is installed in any wall assembly or joist end assembly. Spray applied paint products are not an acceptable form of providing a vapour barrier. (To date no information has been provided from an Approved Testing Agency which shows these paint products as acceptable or compatible.)

When closed cell medium density spray foam is installed as the **sole** insulation material of the wall assembly or joist end assembly, an Approved Vapour Barrier is not required **IF** the applied thickness provides a Water Vapour Permeance less than $60\text{ng}/(\text{Pa}\cdot\text{s}\cdot\text{m}^2)$.

When open or closed cell spray applied foam is installed on the underside of a floor assembly, no additional requirements for air or vapour barrier are required **IF** the sub floor sheathing is sealed at both the butt joints and along the tongue and groove. This would apply to bonus rooms over unheated attached garages or other similar scenarios.

Protection of Foamed Plastics

Unless concealed in a floor, attic or crawl spaces, all foamed plastics used in residential buildings must be protected in conformance with Sentence 9.10.17.10. Protection of Foamed Plastics. ABC 2006 Division B.

Requirements for Building Compliance

All spray applied foam insulation Contractors must, at time of installation, post in a visible location a label identifying the following:

- Job site Address
- Product Name(s) and CCMC Listing number(s)
- Thickness of application
- Licensed Contractor Name and contact information
- Name and Certification Number of the installer
- Date of Installation
- Product applied as a Thermal Barrier

Until further notice, ALL open cell (1/2 pound) spray applied foam insulations, applied in a wall assembly, joist end assembly or ceiling or floor assembly will require a 6 mil CAN/CGSB poly Vapour Barrier.

The requirements of this policy shall be in effect starting immediately.

Any person who proposes use of a "New" product must provide product approvals to the City of Lethbridge Inspection Services office prior to use of the product in the City of Lethbridge Corporate Limits.



Kerry Crump
Inspections Supervisor
City of Lethbridge
Building Safety & Inspection Services



Darrin Harsch
Building SCO, Commercial Plans Examiner
City of Lethbridge
Building Safety & Inspection Services